

REMARKS

With this Amendment, minor corrections have been made to the specification, drawings and a claim. Reconsideration of the application, as amended, is respectfully requested.

As a preliminary matter, Applicant requests that the Examiner acknowledge that the references cited in the Information Disclosure Statements filed June 11, 2001 and February 7, 2002 have been considered. Copies of the Information Disclosure Statements are enclosed herein for consideration and entry.

In Section 1 of the Office Action, the Examiner requested copies of relevant pages of a reference listed in the Information Disclosure Statement (PTO 1449) filed on April 17, 2001. A Supplemental Information Disclosure Statement that includes the requested pages accompanies this Amendment.

In Section 2 of the Office Action, the Examiner objected to FIG. 1 for failing to provide a sufficiently descriptive label for box 24. Applicant has amended FIG. 1 by further labeling box 24 as "control room" and requests that the objection be withdrawn.

In Section 3 of the Office Action, the Examiner objected to FIG. 5 because steps 66 and 76 are not in accordance with the specification on page 16, line 4, and page 17, lines 22-23, respectively. Applicant has made the appropriate amendment to FIG. 5 to correct the inconsistency and requests that the objection be withdrawn.

In Section 4 of the Office Action, the Examiner objected to FIG. 2 as failing to comply with 37 C.F.R. §1.84(p)(5) because it includes a reference sign that is not mentioned in the description. Applicant has amended FIG. 2 to eliminate the reference sign and requests that the objection be withdrawn.

In Section 5 of the Office Action, the Examiner objected to the drawings under 37 C.F.R. §1.83(a) for failing to

show the "dielectric constant calculator" as mentioned in claims 16 and 20. Applicant has amended claim 5 to depict the element in accordance with the specification and requests that the objection be withdrawn.

In Section 6 of the Office Action, the Examiner objected to the disclosure for failing to correctly label the "control loop." Applicant has amended the specification to correct the defect and requests that the objection be withdrawn.

In Section 8 of the Office Action, the Examiner rejected claims 17-20 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,198,424 to Diede et al. (Diede). Applicant respectfully believes that the rejected claims are allowable even in view of the cited reference.

Independent claim 17 is directed to a radar level transmitter for providing level detection of materials in a container. The radar level transmitter includes calculating "a first threshold value as a function of the transmit pulse amplitude." In contrast, Diede looks at the reflected fiducial pulse 310. [Col. 4, lines 19-22] As recognized by the Examiner, Diede teaches "the idea of setting the threshold value for a pulse as a function of the pulse's reflected amplitude." [Page 5, emphasis added] This is not the transmit pulse amplitude as stated in claim 17. Claim 17 and its dependent claims are allowable and the rejections may be withdrawn.

In Section 10 of the Office Action, the Examiner rejected claims 1, 2, 4, 5, 7, 8, 10-13 and 16 under 35 U.S.C. §103(a) as being unpatentable over Diede in view of U.S. Patent No. 5,609,059 to McEwan. Applicant respectfully asserts that the Diede reference is disqualified as prior art to the present application. 35 U.S.C. § 103(c) provides:

Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude

patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

This change to 35 U.S.C. 103(c) applies to patent applications filed on or after November 29, 1999. The present application was filed September 22, 2000 and both Diede and the claimed invention were assigned, or were at least under an obligation to be assigned, to Rosemount Inc., of Eden Prairie, MN at the time the invention was made. As a result, Applicant asserts that Diede is disqualified as prior art to the present invention and requests that the rejections of independent claims 1 and 10 and their dependents be withdrawn.

In Section 11 of the Office Action, the Examiner rejected claims 3, 6, 9, 14 and 15 under 35 U.S.C. §103(a) as being unpatentable over U.S. Diede in view of McEwan, and further in view of U.S. Patent No. 5,500,649 to Mowrey et al. In light of the discussion above, Applicant respectfully believes that claims 3, 6 and 9 are allowable since they depend from allowable base claim 1. Similarly, Applicant believes that claims 14 and 15 are allowable since they contain from allowable base claim 10. Therefore, Applicant requests that the rejections of the claims be withdrawn.

In view of the above comments and remarks, it is believed that the present application is in condition for allowance. Consideration and favorable action is respectfully requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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MARKED-UP VERSION OF REPLACEMENT PARAGRAPHS

Replacement paragraph for the paragraph beginning on Page 16, Line 19 and ending on Page 7, Line 3:

At step 70, a threshold calculation sets first threshold value T1 as a function of the estimated first pulse amplitude. In general, first threshold value T1 is set to a predetermined percentage of the estimated first pulse amplitude. The correction factor, first dielectric parameter, and second dielectric parameter, can be set by an operator who could be, for example, communicating with microprocessor system 30 over process control loop ~~36~~26 from control room 24. The operator can set the parameters using a computer by either inputting the values with a keyboard and/or selecting the values from a table, which can be stored for use by, for example, threshold calculation module 56.

Replacement paragraph for the paragraph beginning on Page 20, Line 9 and ending at Page 20, Line 29:

Radar level transmitter 10 can also include a dielectric constant calculator ~~82(not shown)~~ that is configured to calculate a dielectric constant of second material 14 as a function of the amplitude of the first reflected wave pulse 44 and the reference amplitude. The use of a dielectric calculator in a radar level transmitter 10 is disclosed in U.S. Patent Application Serial No. 09/234,999 filed January 11, 1999 and entitled, MULTIPLE PROCESS PRODUCT INTERFACED DETECTION FOR A LOW POWER RADAR LEVEL TRANSMITTER, which is herein incorporated by reference. In this embodiment, threshold calculation module 56 can recalculate the estimated first pulse amplitude and threshold value T1 with the first dielectric parameter set to the calculated dielectric constant. As a result, threshold

calculation module 56 can initially calculate first threshold value T1 in accordance with the first dielectric constant which is set by an operator and later adjust first threshold value T1 in response using the value obtained from a dielectric constant calculator.

MARKED-UP VERSION OF REPLACEMENT CLAIMS

17. (Amended) A radar level transmitter for providing level detection of materials in a container, the transmitter comprising:

an antenna;

a transceiver coupled to the antenna and configured to+
transmit a microwave pulse having a transmit pulse
amplitude using the antenna and produce a signal
representing reflected wave pulses;

a microprocessor system coupled to the transceiver and
adapted to control the transceiver and process the
signal;

a threshold calculation module executable by the
microprocessor system and adapted to calculate a first
threshold value as a function of the transmit pulse
amplitude and properties of the materials; and

a level calculation module executable by the microprocessor
system and adapted to establish a level of a first
material interface using the signal and the first
threshold value.